

SOV/20-120-2 19/63

AUTHORS: Balandin, A. A., Member, Academy of Sciences. USSR
Bogdanova, O. K., Shcheglova, A. P.

TITLE: The Production of Isoprene by Catalytic Dehydrogenation
of Isopentenenes
(Polucheniye izoprena putem kataliticheskoy degidrogenizatsii izopentenov)

PERIODICAL: Doklady Akademii Nauk SSSR. 1958, Vol. 120, Nr 2.
pp. 297-300 (USSR)

ABSTRACT: This synthetic production in connection with the polymerization of isoprene and the production of isoprene-rubber with better properties than natural rubber makes the method of isoprene production a problem of topical interest. Cheapest and most promising are mineral oil and its derivatives as raw material. The mineral-oil industry disposes of considerable supplies of isopentane and isopentenenes which can be utilized for the above-mentioned purpose by the method mentioned in the title. The conditions of reaction according to publications (References 1-4) are given. For determining the optimum conditions the authors investigated this reaction at different temperatures.

Card 1/2

The Production of Isoprene by Catalytic Dehydrogenation of Isopentenol 307/20-170-2-19/63

peratures and supply velocities of isopentenol as well as by different dilution with steam. The results are given in table 1 and figures 1-3. The best conditions for the dehydrogenation of isopentenol to isoprene are: temperature 580-620°C, supply velocity per 1 liter catalyst 5000-8000 ml/hour, and dilution with steam 1 : 2 : 3 (by weight). The catalyst does not need regeneration for a longer period of time. Experiments of results were also made at 600°C and supply velocities of 6700-7200 ml/liter/hour as well as a steam dilution of 1 : 3. The results are given in table 2. Finally the kinetics of the reaction was investigated and a velocity constant of 4.3 ml/min at 530°C and 12.25 ml/min at 590°C was determined. The activation energy of the reaction is equal to 25.3 Kcal/mol.

There are 3 figures, 2 tables, and 5 references, 1 of which is Soviet.

ASSOCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED:

Card 2/2

- March 7, 1958
- | | |
|---------------------------------|--------------------------------|
| 1. Isopentenol--Dehydrogenation | 2. Isopentenol--Polymerization |
| 3. Synthetic rubber--Production | 4. Mineral oils--Applications |

SOV/62-59-2-27/40

5(3)
AUTHORS: Bogdanova, O. K., Shcheglova, A. P., Balandin, A. A.

TITLE: Catalytic Dehydrogenation of Isopentane-Isopentene Mixtures
(Kataliticheskaya degidrogenizatsiya izopentan-izopentenovykh smesey)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1959, Nr 2, pp 330-352 (USSR)

ABSTRACT: In this news in brief the authors report on the dehydrogenation of isopentane-isopentene mixtures by means of the continuous flow method in a device described in reference 1. The results obtained showed that the dehydrogenation of isopentane-isopentene mixtures can be carried out on the "chromo-aluminum" catalyst by dilution with steam. Optimum conditions are: 600-620°C, flow rate 5000-6000 ml/l per hour, dilutions with steam in a weight ratio of 1:3. Under these conditions the yield of isoprene is 38-40% of the initial isopentenes and 88-92% of the reacted mixture. The high yield of isoprene indicates that no decomposition of hydrocarbons takes place under the influence of steam. The catalyst is distinguished by a considerable selectivity and is able to operate for some time

Card 1/2

Catalytic Dehydrogenation of Isopentane-Isopentene Mixtures SOV/62-59-2-27/40

without regeneration. The mixtures used were produced in the laboratory of B. A. Kazanskiy and N. I. Shuykin. There are 1 figure, 3 tables, and 3 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry named N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: July 4, 1958

Card 2/2

5(5)

SOV/79-29-7-23/23

AUTHORS:

Bogdanova, G. K., Balandin, A. A., Shcheglova, A. P.

TITLE:

Preparation of Butadiene by Catalytic Dehydrogenation of Butane -
butylene mixtures in the Presence of Steam (Polucheniye
butadiyena kataliticheskoy degidrogenizatsiyey butan-
butilenovykh smesey v prisutstvii parov vody.)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2204-2212 (USSR)

ABSTRACT:

One of the most important methods of synthesizing butadiene is
the catalytic dehydrogenation of butylene into butadiene.
Butylene may be obtained from cracking gases and in petroleum
pyrolysis or by dehydrogenolysis of butane. In this connection,
however, butylene is obtained in a mixture with butane so that
this mixture must be fractionated in the presence of a third
component. Industrial preparation of butadiene should practi-
cally be carried out without separating butylene from butane in
the above mixture. Earlier (Ref 1) the authors investigated the
dehydrogenolysis of butane-butylene mixtures over a chromium
catalyst at reduced pressure and obtained good yields in
butadiene. Some patents (Refs 2-4) offered only low yields.
The authors of this paper tried to investigate the effect of
steam on the dehydrogenolysis of butane-butylene mixtures,

Card 1/2

Preparation of Butadiene by Catalytic Dehydrogenation of SOV/79-77-7-21/83
Butane - butylene Mixtures in the Presence of Steam

viz over a catalyst suited for dehydrogenolysis carried out in the presence of steam since the latter is the most convenient diluent. Steam is known to favor, in the presence of some catalysts and at increased temperatures, the cracking process of hydrocarbons. Dehydrogenolysis of the above mixtures may take place in the presence of steam over an oxide catalyst for the dehydrogenolysis of butylene. Under these conditions the butadiene yields were 40% computed for the butylene passing through, and 75-80% computed for the reacted mixture. It is not necessary to regenerate the catalyst also after longer usage. The chromium-aluminum catalyst retards the dehydrogenolysis of butane into butylene in the presence of steam and converts the latter partially into decomposition products. Without diluent at 635° the butadiene yields over the same catalyst were 11.6%, computed for the mixture passed through, in this case the catalyst had to be regenerated several times. There are 4 figures, 5 tables, and 10 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)
SUBMITTED: April 15, 1958
Card 2/2

5(4) -
AUTHORS: Bogdanova, O. K., Balandin, A. A., SOV/62-59-8-5/42
Shcheglova, A. P.

TITLE: Effect of the Structure of Alcohol Molecules on the Kinetics of Dehydrogenation. Communication 4: Catalytic Dehydrogenation of Benzyl Alcohol

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 8, pp 1372-1377 (USSR)

ABSTRACT: A flow system described in (Ref 1) was used for the investigation of the dehydrogenation kinetics. The constancy of catalytic activity was checked in the course of the experiment by means of benzyl alcohol and a mixture of benzyl alcohol and its reaction products. The benzaldehyde contents of the catalyst were determined by the method described in reference 4. The reaction rate was determined from the amount of hydrogen separated out per time unit. The two determinations were in good agreement. The reaction was investigated at 4 different rates of passage (1.02, 1.23, 1.33, and 1.8 ml in 5 min). The benzaldehyde yield increased from 8.2% to the predetermined yield of 61%. The results are compiled in table 1. The calculated degree of dehydrogenation and benzaldehyde yield are

Card 1/3

Effect of the Structure of Alcohol Molecules on the Kinetics of Dehydrogenation. Communication 4: Catalytic Dehydrogenation of Benzyl Alcohol SOV/62-59-8-5/42

in agreement. In order to investigate the mixture mentioned above the adsorption coefficient of benzaldehyde was determined during the reaction. (Results in Table 2). It is stated that the reaction is slowed down when benzaldehyde is added. A temperature increase results in a reduction of the adsorption coefficient. A change in the initial mixture of benzaldehyde and benzalcohol does not effect the adsorption coefficient. With high passage rates it is reduced, but becomes constant with particularly high rates (Table 4). According to formula (1) $\Delta = -RT \ln z_2$ (z_2 adsorption coefficient of benzaldehyde) the heat content and entropy in the adsorption displacement of the alcohol by the aldehyde were determined. When the dehydrogenation temperature is increased the aldehyde yield can be increased greatly. This may be of practical value in the preparation of benzaldehyde. There are 4 figures, 4 tables, and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR) Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)
Card 2/3

Effect of the Structure of Alcohol Molecules on the SOV/62-59-8-5/42
Kinetics of Dehydrogenation. Communication 4: Catalytic
Dehydrogenation of Benzyl Alcohol

SUBMITTED: November 20, 1957

Card 3/3

5. 3200

5(4)
AUTHORS:

TITLE:

PERIODICAL:

ABSTRACT:

ASSOC

ard 2/2

Card 1/2

66861
SOV/76-33-11-16/47
Balandin, A. A., Bogdanova, O. K., Shcheglova, A. P.
Influence of the Structure of Alcohol Molecules on the Kinetics
of Their Dehydrogenation[†]

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, pp 2476-2479
(USSR)

The dehydrogenation kinetics of the following alcohols was investigated on oxide catalysts: ethanol, n-propanol, n-butanol, allyl alcohol, isoamyl alcohol, isopropanol, benzyl alcohol, and β -phenyl ethyl alcohol. The experiments were carried out by means of a device and method earlier described (Ref 1). The reaction constants of alcohol dehydrogenation obtained (Table 1) increase from allyl alcohol to benzyl alcohol. The values of the free energy of displacement from the active catalyst surface and of the change ΔH are listed (Table 2). Moreover, the authors explain the effect of the structure on the activation energy (Ref 3) and the variation in the heat of adsorption displacement and entropy. In addition, they found that the structure has some effect. Accordingly, an extension of the hydrocarbon chain in the primary alcohol leads to a decrease of the acti-

...im. N. D. Ze-
...stitute of Organic

5.3200

5(3)

AUTHORS:

67920
SOV/20-129-5-30/64
Shcheglova, A. P., Balandin, A. A., Academician, Bogda-
nova, O. K.

TITLE:

Kinetics of Dehydrogenation¹ of Isopentenes¹

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 5,
pp 1071 - 1074 (USSR)

ABSTRACT:

In one of their previous papers the authors had dealt with the investigation of the dehydrogenation kinetics of butylene on a mixed oxide catalyst (Ref 1). Equation (1) holds for the results obtained (Ref 2). It, however, holds also for the dehydrogenation of alcohols on an oxide catalyst (Ref 3). Of late, the catalytic dehydrogenation of isopentenes has been acquiring great practical importance as a method of producing isoprene for the caoutchouc synthesis. The authors had earlier (Ref 4) determined the conditions of isopentene dehydrogenation under dilution with steam on an oxide catalyst. The same catalyst served for the investigation under review. It was confirmed by special experiments that steam does not influence the reaction rate on diluting the isopentenes (Fig 1). Steam acts in a similar way as the

Card 1/4

Kinetics of Dehydrogenation of Isopentenes

57920

SOV/20-129-5-30/64

inert gases nitrogen and argon. The principle supporting the method was described in reference 4. Isopentenes were obtained by the dehydrogenation of isoamyl alcohol on aluminum oxide. The experiment was made with the fraction having a boiling temperature at 31-38°; it contained 2-methyl butene-1 and 2-methyl butene-2. Experiments with pure isopentenes were carried out at 520-600°. Table 1 shows the results obtained. As may be observed therefrom the reaction runs without the formation of appreciable amounts of decomposition side products. Experiments with isopentenes and isoprene were carried out between 530 and 580°. These mixtures contained 22.2 mol% of isoprene. Data obtained are given in table 1. On comparing the data obtained from mixtures with those of isopentenes it may be observed that the degree of transformation of the latter into isoprene is much lower in the case of mixtures than with pure isopentenes. Isoprene is adsorbed more strongly on the active centers of the catalyst, and inhibits the reaction. Figure 2 shows the dependence of the relative adsorption coefficient Z_2 of isoprene on temperature, calculated on the basis of formula (2). Table 2 summarizes the data concerning the determination of

Card 2/4

Kinetics of Dehydrogenation of Isopentenenes

67920

SCV/20-123-5-30/64

Z_3 (relative adsorption coefficient of hydrogen). As may be seen from table 2, $Z_3 = 0.8$ holds and is independent of temperature. Thus, hydrogen is adsorbed on the catalyst almost as strongly as isopentene. On the strength of data obtained, rate constants were determined by the aid of equation (1). At 530°, 540°, 560°, and 580° the constants are 4.3; 5.4; 7.7; and 10.7. The corresponding activation energy is 23.3 kcal/mol. Figure 3 shows the dependence between $\lg k_c$ and the reciprocal temperature. The points are situated on a straight line. The Arrhenius equation is satisfied. On the strength of the known formulas (Ref 3) the authors calculated the change of free energy, of heat capacity, and of entropy of the adsorptive displacement (Table 3). The authors state that isopentenenes are more quickly dehydrogenated than butylenes. Butadiene is more strongly adsorbed on the active centers of the catalyst than isoprene. There are 3 figures, 3 tables, and 4 Soviet references.

✓

Card 3/4

Kinetics of Dehydrogenation of Isopentenes

67920

SOV/20-129-5-30/64

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Ze-
linskiy of the Academy of Sciences, USSR) ✓

SUBMITTED: August 2, 1959

Card 4/4

5.3200
5(3)

68152

AUTHORS: Bogdanova, O. K., Shcheglova, A. P., SOV/20-129-6-26/69
Balandin, A. A., Academician

TITLE: Kinetics of Dehydrogenation of Butylene¹

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 6, pp 1293 - 1296
(USSR)

ABSTRACT: The authors proved in a previous paper (Ref 3) that butadiene is adsorbed on the aluminum chromium catalyst, that the relative adsorption coefficient of butadiene is high, and that its numerical value increases with decreasing temperature. In their investigations of butylene dehydrogenation, N. A. Shcheglova and S. Ya. Pshezhetskiy (Ref 4) found a deviating equation (2) which is similar to equation (1) of the authors (Ref 3). Absorption was not considered in deriving equation (2), and it was maintained that the addition of hydrogen and butadiene does not remarkably influence the reaction rate. This contradicts the authors' assumptions mentioned in the beginning. The paper under review describes the investigation of the kinetics mentioned in the title on a mixed oxide catalyst. The investigations were carried out in a device described earlier (Ref 6). The α -butylene used contained about 7% of β -butylene. The pure butylene

Card 1/3

68:62

SOV/20-129-6-26/69

Kinetics of Dehydrogenation of Butylene

as well as butylene-hydrogen-butadiene mixtures were diluted with steam (1 : 10 mol). The hydrogen content was varied from 21.8 to 75 mol% (Table 1). Figure 1 shows the curves of butylene displacement by hydrogen at 600° (a) and at 620° (b). Table 2 shows the dehydrogenation rates of the mixtures butylene-butadiene at 580, 600, and 625°. The butadiene content was varied between 26.4 and 92%. It appeared that butadiene is formed as well as disintegrated in the catalyst. Its decomposition increases with temperature and its increase in the mixture (Fig 2:1,2). The correction with regard to butadiene disintegration was determined from the results and considered in the data on the reaction of butylene-butadiene mixtures. The curves 3 (Fig 2) were found by subtracting curves 2 from curve 1. The relative adsorption coefficients were computed according to formula (3). For butadiene, this coefficient $z = 4.9$ at 580°. It decreases at 620°: $z_2 = 2.9$. For hydrogen, $z_3 = 0.8$; it depends on temperature between 580 and 620°. Steam does not influence the reaction rate. The reaction constant $k = 7.26$ at 580°, 9.3 at 600°, and 12.1 at 620°. Figure 3 shows

Card 2/3

Kinetics of Dehydrogenation of Butylene

58162
SOV/20-129-6-26/69

the linear dependence between $\log k_0$ and the reciprocal absolute temperature. The activation energy, computed from the velocity constants (k_0), was 19.1 kcal, the pre-exponential term of the Arrhenius equation was 5.75. The change of free energy, of heat capacity, and of entropy (Table 3), as well as the displacement of butylene from the active catalyst centers by butadiene due to adsorption (Table 3), could be computed from the adsorption coefficients and their temperature dependence according to known formulas (Ref 7). The adsorption coefficients of butylene, butadiene, and hydrogen (equation (1)) are 1 : 4.9 : 0.8 at 580°, and 1 : 3.7 : 0.8 at 600°. The names of Podbil'nyak and Bushmarin are mentioned in the text. There are 3 figures, 3 tables, and 7 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: August 2, 1958

Card 3/3

S/595/60/000/000/009/014
E134/E485

AUTHORS: Balandin, A.A., Bogdanova, O.K., Shcheglova, A.P.
TITLE: Catalytic dehydrogenation of isopentenes to isoprene
SOURCE: Vsesoyuznoye soveshchaniye po khimicheskoy
pererabotke neftyanykh uglevodorodov v poluprodukty
dlya sinteza volokon i plasticheskikh mass. Baku, 1957
Baku, Izd-vo AN Azerb. SSR, 1960, 233-239

TEXT: The paper is concerned with the catalytic dehydrogenation of isopentenes and the conversion of isopentane-isopentenes mixtures to isoprene as part of the general problem of manufacture of isoprene rubber from the isopentane fraction in petroleum. The authors studied dehydrogenation of isopentene and isopentane-isopentenes mixtures in the presence of steam at atmospheric pressure. Artificial mixtures as well as mixtures obtained by dehydrogenation of isopentane on an Al-Cr catalyst were used. The experiments were carried out by continuous flow over a mixed oxide catalyst. Work on isopentene was concerned with the effect of temperature, flow rate and steam dilution ratio on isoprene yield. Yield based on isopentene feed increased from 14.5 to 36% as temperature rose from 540 to 620°C but dropped from Card 1/5

Catalytic dehydrogenation

S/595/60/000/000/009/014
E134/E485

92 to 85% of the reacted isopentene. Curves showing the effect of temperature and flow rate on isoprene yield are given (Fig. 1 and 2). Best dilution ratios are 1:2 or 1:3 by weight. A complete mass balance for operation with a 1:3 ratio at 600°C at a rate of 4500 g/litre catalyst/hour is given. Under these circumstances yield is 28 to 30% on feed and 88 to 92% on reacted isopentene. The removal of carbon from the catalyst in the form of carbon dioxide makes prolonged reaction without regeneration possible. The results show that the catalyst acts selectively. Investigations of mixtures 55% isopentane-45% isopentene were carried out under identical conditions to study the effect of flow rate and temperature. Conversion of mixture and yield of isoprene increased with rising temperature but yield of isoprene based on reacted isopentene dropped from 94 to 86.5%. A full analysis is given. At 600°C, a flow rate of 4400 g/litre catalyst/hour and 1:3 dilution ratio yield of isoprene on isopentene present was 38 to 40% and was more than 90% of the reacted isopentene. Under identical conditions dehydrogenation of isopentane to isopentene only took place to the extent of 4 to 6% and there is no direct

Card 2/5

Catalytic dehydrogenation ...

S/595/60/000/000/009/014
E134/E485

conversion to isoprene. Results with mixtures obtained by dehydrogenation of isopentane over an Al-Cr catalyst were similar to those with synthetic mixtures. Full analysis showing effect of flow rate and temperature is given. The degree of conversion decreases with increasing flow rate. The kinetics of the reaction were investigated in the 530 to 580°C range with a steam dilution ratio of 1:2 and hourly flow rates of 5200 to 7000 g/litre catalyst/hour. Reaction rate is given by equation of the following type

$$\frac{dx}{dx} = K \frac{[A_1]}{[A_1] + z_1 [A_2] + z_2 [A_3]} \quad (1)$$

The adsorption coefficients z were determined experimentally by measuring the rate of dehydrogenation of binary mixtures of the starting material and the reaction products and were calculated from

$$z_1 = \frac{m}{\frac{100}{\rho} - 1} \quad (2)$$

Card 3/5

Catalytic dehydrogenation ...

S/595/60/000/000/014
E134/E485

where m_0 - number of mols of reaction product for feed of pure starting material; m - number of mols of reaction product for feed of mixture; p - percent of reacting material in initial mixture. The hydrogen adsorption coefficients remained constant at 0.83. The isoprene adsorption coefficients dropped from 5.7 to 2.8 (z_2) between 530 and 580°C. The reaction rates were calculated using the adsorption coefficients and the plot of $\log K$ against the reciprocal of the absolute temperature gave a straight line. The activation energy was calculated as 23300 calories/molecule. The mixtures used in the tests were produced in the laboratory of Academician B.A.Kazanskiy and Corresponding Member N.I.Shuykin. There are 3 figures, 4 tables and 6 references: 2 Soviet-bloc and 4 non-Soviet-bloc. The four references to English language publications read as follows: Ref.3: US Patent 2440471, 1948; C.A.42, 54 4, 1948; Ref.4: US Patent 2442319, 1948; C.A.42, 6106, 1948; Ref.5: Grosse A., Morell J.C., Mavity J.M. Industr. Engng. Chem. 32, 309, 1940; Ref.6: Mavity J.M., Zetterholm E.E. Trans. Am. Inst. Chem. Engrs., 40, 1944, 473.

Card 4/6 4

S/020/60/133/03/07/013

S/020/60/133/03/07/013
B016/B068

AUTHORS: Balandin, A. A., Academician, Bogdanova, O. F.,
Shcheglova, A. P.

TITLE: Catalytic Dehydrogenation of Cyclohexanol

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 3,
pp. 578 - 580

TEXT: It was shown by the authors in earlier publications (Ref. 1) that several aliphatic alcohols can be dehydrogenated over a mixed oxide catalyst without any noticeable formation of by-products due to decomposition and dehydration. They showed in this publication that the same catalyst may be also used to dehydrogenate cyclohexanol. This method of preparing cyclohexanone is being used in the production of synthetic fibers in which cyclohexanone is applied as a good solvent. According to Ye. V. Tur, S. A. Anisimov, and M. S. Platonov (Ref. 2), the cyclohexanone yield is up to 25.3% over finely disperse rhenium at 350°C. Benzene, cyclohexane, and other compounds form as by-products. The cyclohexanone yield over a nickel-aluminum catalyst according to

Card 1/3

Catalytic Dehydrogenation of Cyclohexanol

S/C20/60/33/03/07/013
B016/B068

Zelinskiy and Komarevskiy is about 37% at 380°C, with larger amounts (about 48%) of benzene, and, in addition, phenol, cyclohexene, and polymer products being formed. Moreover, the authors give data obtained by German and Japanese researchers. They studied the kinetics of the mentioned reaction, and determined the relative absorption coefficients, the reaction rate constants together with the activation energies (Table 3), the changes in free energy, heat content, and the entropies found for the adsorptive displacement of the alcohol molecules from the active dehydrogenation centers by cyclohexanone (Table 2). Finally, the authors established the conditions of dehydrogenation which secure high yields of cyclohexanone. The continuous method was applied for these experiments. They were carried out in an apparatus described previously (Ref. 8) and over a similar oxide catalyst sample. The conversion degree of alcohol in cyclohexanone varies between 16 and 75.8% of theory (Table 1). The results of further experiments carried out with binary cyclohexanol - cyclohexanone mixtures (containing 24.6 mole % of the latter) are shown in Table 2. From these results, it follows that the relative adsorption coefficient of cyclohexanol is 3.03 at 281°C, and drops to 0.91, if the temperature is raised to 336°C. A logarithmic

Card 2/3

Catalytic Dehydrogenation of Cyclohexanol

S/020/60/133/03/07/013
B016/B068

dependence holds between the adsorption coefficient and reciprocal temperature (Fig. 1). It can be seen from Table 2 that the values of the mentioned coefficients remain unaltered, if the temperature is kept constant and the rates of passage are varied. From Table 4, it can be seen that the conversion degree of alcohol increases from 67.9 to 88.2%, when the temperature is raised from 333 to 360°C and the rate of passage per hour is increased. There are 2 figures, 4 tables, and 10 references: 7 Soviet and 3 American.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo
Akademii nauk SSSR (Institute of Organic Chemistry
imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED March 18, 1960

Card 3/3

S/020/01/03/006/007/016
BO16/BO60

AUTHORS: Shumigova, A. I., Bogdanova, O. K., Balandin, A. A.,
Academician

TITLE: The Problem of Dehydrogenating Butane¹ - Butylene¹ Mixtures
on an Aluminum Chromium Catalyst⁷

PERIODICAL: Doklady Akademii nauk SSSR. 1960. Vol. 133, No. 6,
pp. 1350-1353

TEXT. The present investigation was carried out in 1950. The catalyst was supplied by M. N. Marushkin (Ref. 6). The authors wanted to collect data concerning the kinetics and mechanism of the dehydrogenation⁷ mentioned in the title. The dehydrogenation rates of butane and its binary mixtures with butylene (Table 2), butadiene, and hydrogen (Table 3) were measured under optimum conditions. Since butylene and butadiene are decomposed on this catalyst, the authors measured the reaction rates in binary mixtures of these hydrocarbons with ethane in order to determine the degree of decomposition. In fact, ethane occupies.

Card 1/3

The Problem of Propagating Butane -
Butylene Mixtures on an Aluminum Chromium
Catalyst

1/021/00/133/006/007/016
P010/5063

on the active surface, a part equal to butane, but is neither dehydrogenated nor decomposed. Figs. 1 and 2 show the decomposition of butylene and butadiene, respectively, as dependent on temperature. Experimental results confirmed the assumption previously put forward by the authors, according to which coal and resins result from the dehydrogenation mentioned in the title, due to the decomposition of butylene and, even more, butadiene (Table 3). The authors state in conclusion that the following reactions take place: 1) dehydrogenation of butane to butylene; its rate is inhibited by the butylene that is present in the initial mixture; 2) dehydrogenation of butane and butylene to butadiene; 3) decomposition of butane; 4) decomposition of butylene into light hydrocarbons and coal; 5) decomposition of butadiene into light hydrocarbons, coal, and condensation products. Butadiene develops in low yields at atmospheric pressure. The catalyst is soon polluted with coal and requires frequent regeneration. A more selective dehydrogenation of butane to butylene can be attained (Refs. 1,6) at lower temperatures. Less light hydrocarbons and coal are thus formed.

Card 2/3

The Problem of Dehydrogenating Butane -
Butylene Mixtures on an Aluminum Chromium
Catalyst

S/020/60/133/006/007/016
B016/B060

The authors draw the conclusion that the catalyst used is specific for the dehydrogenation of saturated hydrocarbons (butane). There are 2 figures, 4 tables, and 6 Soviet references.

ASSOCIATION. Institut organicheskoy khimii im. N. D. Zelinskogo
Akademii nauk SSSR (Institute of Organic Chemistry imeni
N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED. March 26, 1960

Card 3/3

BOGDANOVA, O.K.; BALANDIN, A.A.; SHCHEGLOVA, A.P.

Regularities in the catalytic dehydrogenation of primary and
secondary alcohols. Izv.AN SSSR Otd.khim.nauk no.3:425-429 Mr
'61. (MIRA 14:4)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Dehydrogenation) (Alcohols)

KOROTKEVICH, B.S.; SHENDRIK, M.N.; BOGDANOVA, O.K.; SHCHEGLOVA, A.P.;
VINOGRADOVA, N.P.

Catalytic dehydrogenation of ethylbenzene. Khim.prom. no.4:243-248
Ap '61. (MIRA 14:4)

(Benzene)

(Dehydrogenation)

BOGDANOVA, O.K.; SHCHEGLOVA, A.P.; BALANDIN, A.A.; VOZNESENSKAYA, I.I.

Catalytic dehydrogenation of n-pentenes. Izv. AN SSSR Otd. khim.
nauk no. 4: 578-582 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Pentene) (Dehydrogenation)

BOGDANOVA, O.K.; SHCHEGLOVA, A.P.; BALANDIN, A.A.; BELOMESTNYKH, I.P.

Catalytic dehydrogenation of ethyl benzene into styrene.

Neftekhimiia 1 no.2.195-200 Mr-Apr '61. (MIRA 15:2)

1. Institut organicheskoy khimii AN SSSR im. N.D. Zelinskogo.
(Benzene) (Styrene)
(Dehydrogenation)

SCHEGLOVA, A.P.

SCHEGLOVA, A.P., BOGDANOVA, O.K., BALANDIN, A.A., T'YUR'YAYEV, I.P.,
VINNIK, I.F.,

Kinetics of dehydrogenation.

Report presented at the 12th Conference on high molecular weight compounds
devoted to monomers, Baku, 3-7 April 62

S/204/62/002/004/002/019
E071/E433

AUTHORS: Bogdanova, O.K., Shcheglova, A.P., Balandin, A.A.
TITLE: Catalytic dehydrogenation of the individual isopentenes
into isoprene

PERIODICAL: Neftekhimiya, v.2, no.4, 1962, 442-447

TEXT: Kinetics of dehydrogenation of isomeric isopentenes into isoprene on an oxide catalyst in the temperature range 560 to 620°C at a volume velocity of about 5 h⁻¹ and dilution with steam in a wt ratio of 1:3 were studied. The composition of the products was determined by the method of gas-liquid chromatography. Comparison of the obtained data indicates that an overall degree of transformation of the individual isomers in the abovementioned temperature range varies as follows: 2-methylbutene-2 (53.2 to 71.5%) > 2-methylbutene-1 (72.8 to 80.6%) > 3-methylbutene-1 (90 to 92%). From the obtained experimental data the ratio of the velocity constants of the dehydrogenation reaction for the individual isomers: 2-methylbutene-2 : 2-methylbutene-1 : 3-methylbutene-1 was found to equal 1.44 : 1.15 : 1.0. Dehydrogenation of 2-methylbutene-2 proceeds at a higher velocity

Card 1/2

S/204/62/002/004/002/019
E071/E433

Catalytic dehydrogenation ...

than that of the remaining two isomers. Isomerization of the starting hydrocarbons with a shift of the double bond occurs simultaneously with the dehydrogenation reaction. According to the degree of isomerization the isomers can be placed in the following order: 3-methylbutene-1, 2-methylbutene-1, 2-methylbutene-2. The most stable structure is that of 2-methylbutene-2 the least stable that of 3-methylbutene-1 with branching in the saturated part of the molecule. At 580 to 620°C, volume velocity of about 4.5 to 5.5 litre per litre of catalyst per hour and a dilution with steam in a ratio of 1:2.5 to 3 by wt, the yields of isoprene amounted to 25 to 41% on passed and 91 to 82% on reacted isopentenenes. There are 3 figures and 3 tables.

ASSOCIATION: Institut organicheskoy khimii AN SSSR im.
N.D.Zelinskogo (Institute of Organic Chemistry
AS USSR imeni N.D.Zelinskiy)

Card 2/2

L 12732-63 EPF(c)/EWP(j)/EWT(m)/BDS ASD Pr-l/Pc-l RM/WW
ACCESSION NR: AP3002283 S/0062/63/000/006/0999/1003

67
66

AUTHOR: Shcheglova, A. P.; Bogdanova, O. K.; Balandin, A. A.

TITLE: Catalytic dehydrogenation of isomeric isopentanes. Report 1. Dehydrogenation of 2-methylbutene-2

SOURCE: AN SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 6, 1963, 999-1003

TOPIC TAGS: preparation of isoprene, dehydrogenation rate of isomers

ABSTRACT: The object of this work is to study the formation rate of isoprene by individual dehydrogenation of isomeric pentanes (3-methylbutene-1, 2-methylbutene-1, and 2-methylbutene-2) which are obtained through a catalytic dehydrogenation of isopentane. The yield of isoprene, formed during the dehydrogenation of 2-methylbutene-2 using a mixed oxidizing catalyst at a flow rate of 4500 ml/l of catalyst per hour and with an increase of temperature from 560 to 620C increases from 20.5 to 41.5% of the total hydrocarbon used. Simultaneously with the dehydrogenation, the conversion of 2-methylbutene into 3-methylbutene (3.7-5%) and 2-methylbutene-1 (18.8-26.0%) takes place by means of shifting of the double bond. The composition of the isopentane isomers were determined by gas-liquid chromatography. Orig. art. has: 1 table and 3 figures.

Association: Organic Chemistry Inst., Academy of Sciences

Card 1/2

USSR/Medicine - Dysentery SHCHEGLOVA, A. S.

FD 138

Card 1/1

Author : Shcheglova, A. S.

Title : Phagocytic reactions in children suffering from dysentery and during the process of vaccine therapy

Periodical : Zhur Mikrobiol, Epid, i Immun, 4, 60-68, Apr 1954

Abstract : The phagocytic reactions of healthy children, children suffering from chronic dysentery without clinical aggravations children with acute dysentery, and children with aggravated forms of chronic dysentery were investigated. The dynamics of phagocytic changes which arose in response to specific and non-specific antigens during the course of vaccine therapy and after revaccination are discussed in detail. No references are cited. The results of the investigations are illustrated by 12 graphs and 2 charts.

Institution : Immunological Laboratory (Head-Prof. V. A. Chernokhvestov of the Moscow Scientific Research Institute of Vaccines and Serums (Director M. G. Kashtanova, Scientific Head-Prof G. V. Vygodchikov)

Submitted : August 11, 1953

USSR / Microbiology. Antibiosis and Symbiosis. Antibiotics. P-2

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21833

Author : Model, L.M., Shcheglova, A.S.

Inst :

Title : The Effect of Streptomycin on the Growth and on Some Bio-chemical Properties of tubercular Mycobacteria.

Orig Pub: Probl. tuberkuleza, 1955, No 6, 46-52

Abstract: Streptomycin in minimal concentrations (0.1 - 0.5 γ /ml) stimulated the growth of tubercular bacteria strains DG and Vallee on a synthetic Model medium. At the same time, the consumption of nitrogen and oxidation of glycerin was increased: the content of lipoids and phosphorus-containing compounds in the cell cytoplasm was decreased and that of polysaccharides was increased. In the medium acidified to pH 6.2, streptomycin showed no effect on tubercular mycobacteria.

Card : 1/1

-4-

KUSHKO, I.V., KONIKOV, A.P., SHCHEGLOVA, A.S.

Purification and crystallization of erythrogenic scarlet fever
toxin [with summary in English]. Vop.med.khim. 4 no.1:33-38
Jan-F'58 (MIRA 11:5)

1. Otdel biokhimii i otdel detskikh infektsiy Instituta imeni
N.F. Gamalei, Moskva.
(SCARLET FEVER, immunology
erythrogenic toxin, purification & crystallization (Rus))

LYAMPIN, I.M.; BORODIYUK, N.A.; AGABABOVA, E.R.; SHCHEGLOVA, A.S.;
BOLOTINA, A.Yu.; YARESHKO, N.T.

Streptococcal antigens in patients with rheumatic fever at various
stages of the disease. Zhur.mikrobiol., epid. i immn. 32 no.10:
56-64 0 '61. (MIRA 14:10)

1. Iz Instituta epidemiologii i mikrobiologii im. Gamalei AMN SSSR,
i Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova
i Revmatologicheskogo kabineta Leningradskogo rayona, Moskva.
(RHEUMATIC FEVER) (STREPTOCOCCAL INFECTIONS)

SHCHEGLOVA, A.V.; GRODZENSHIK

"Clinical aspects and prevention of benzene poisoning" by
L.M. Omel'ianenko, N.A. Senkevich. Reviewed by A.V. Shcheglova,
Grodzenchik. Gig. truda i prof. zab. 4 no. 2:56 F '60. (MIRA 15:3)
(BENZENE--TOXICOLOGY)
(OMEL'IANENKO, L.M.) (SENKEVICH, N.A.)

SHCHEGLOVA, A.V.; REVNOVA, N.V.

Use of new methods in the calculation of thrombocytes and basophilic and granular erythrocytes. Lab.delo 6 no.6:5-6 N-D '60. (MIRA 13:11)

1. Laboratoriya klinicheskogo otdela (rukovoditel' - prof. M.A. Kovnatskiy) Instituta gigiyeny truda i professional'nykh zabolevaniy (dir. - E.E.Grigor'yev), Leningrad.
(ERYTHROCYTES)
(BLOOD PLATELETS)

VOL'FOVSKAYA, R.N., kand.med.nauk; OSIPOV, Yu.A., kand.med.nauk; KOLYADA, T.V.;
KULIKOVSKAYA, Ye.L.; ASANOVA, T.P.; SHCHEGLOVA, A.V., kand.med.nauk

Combined effect of a high-frequency field and X-rays under industrial
conditions. Gig. i san. 26 no.5:18-23 My '61. (MIRA 15:4)

1. Iz Leningradskogo instituta gigiyeny truda i professional'nykh
zabolevaniy.

(ELECTRICITY---PHYSIOLOGICAL EFFECT) (X RAYS---PHYSIOLOGICAL EFFECT)
(ELECTRONIC INDUSTRIES---HYGIENIC ASPECTS)

SHCHEGLOVA, A.V.

Qualitative changes in the erythrocytes of subjects working under the combined effect of occupational factors (gamma irradiation, high frequency currents, lead). Probl.gemat. i perel. krovi no.7:35-37 '62. (MIRA 15:9)

1. Iz klinicheskogo otdela (zav. - prof. M.A. Kovnatskiy) Gosudarstvennogo nauchno-issledovatel'skogo instituta gigi-yeny truda i professional'nykh zabolevaniy (dir. - prof. Z.E. Grigor'yev), Leningrad.
(ERYTHROCYTES) (OCCUPATIONAL DISEASES)

OSIPOV, Yu.A., kand. med. nauk; VOL'FOVSKAYA, R.N., kand. med. nauk;
ASANOVA, T.P., kand. med. nauk; KULIKOVSKAYA, Ye. L., starshiy
inzhener; KALYADA, T.V., mladshiy nauchnyy sotrudnik; SHCHEGLOVA,
A.V., kand. med. nauk

Combined effect of a high frequency magnetic field and X-ray
radiation in industry. Gig. i san. 28 no.6:35-39 Je'63.
(MIRA 17:4)

1. Iz Leningradskogo instituta gigiyeny truda i professional'-
nykh zabolevaniy.

SHCHEGLAVA 1.1.

On the stability of the ... in persons subjected to the
action of some ... and ... agents. Probl. genet. i
perel. krovi no. 1987- ... (MIRA 1987)

1. In kind ... team - prof. M.A. Komarov) Nauchno-
issledovatel'skoe ... i ... professional ...
zab ... - prof. R.A. ...

SHCHEGLOVA, E.

With the chemists of Shchelkovo. Zashch. rast. ot vred.
1 bol. 10 no.12:16-17 '65. (MIRA 19:1)

⁶
SIBIRSKAYA, A. A.

"Pathogenesis and Clinic of Treatment of a Posterior Glottic Abscess in Children," Vop.
Ped. i Okhran. Mater. i Met., 14, No. 3, 1949. Mbr., Chair Otolaryngology, Leningrad State
Pediatric Med. Inst., -c1949-.

SHCHEGLOVA, F.E., dotsent; MINTS, R.S., kandidat meditsinskikh nauk

Contribution to the etiology of deafness in early childhood. Vest.
oto-rin. 16 no.6:10-15 N-D '54. (MLRA 8:1)

1. Iz detskogo sursologopedicheskogo kabineta (zav.-dotsent
F.E.Shcheglova)-Leningrad
(HEARING DISORDERS, in infant and child
deafness in inf., etiol.)

EXCERPTA MEDICA Sec 19 Vol 2/11 Rehabilitation Nov 59

2441. Aims and problems of otiatric observation in schools and institutions for hard-of-hearing and deaf-mute children of preschool age (Russian text) SHCHEGLOVA F. E. From the book: *Otatochnyyi slukh u tugoukhikh i glukhone-slykhnykh detei* (Moscow) 1957 (116-122)

The author outlines the work of the medical specialist in otiatrics in schools and institutions for deaf and hard-of-hearing children of preschool age. She stresses that otolaryngologists who work in these organizations must study more thoroughly the problem of deafness and hardness-of-hearing, especially the questions of classification and diagnosis of these disorders, as well as of standardization of terminology. It would be practical to develop ear specialists with training in paediatrics, and to organize research- and methodology centres, in the Public Health system, where studies could be conducted on problems of deafness in children. (S)

TSYSKOVSKIY, V.K.; SHCHEGLOVA, F. TS.

Effect of the oxidation temperature of n-paraffinic hydrocarbons on
the direction of decomposition of alkylhydroxyperoxides. Khim.prom.
no.5:325-326 My '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protssessov.

(Paraffins) (Peroxide)

USSR/Physical Chemistry - Solutions. Theory of Acids and Bases, B-11

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 488

Author: Gel'bshteyn, A. I., Shcheglova, G. G., and Tamkin, M. I.

Institution: None

Title: Acidity of Aqueous HCl Solutions and of the System $P_2O_5-H_2O$ at Various Temperatures

Original

Periodical: Zh. neorgan. khimii, 1956, Vol 1, No 2, 282-297

Abstract: The indicator method was used in determining the dependence of the acidity H_0 on the temperature and on the concentration in aqueous solutions of HCl (up to 6.44 M), aqueous solutions of H_3PO_4 (up to 100%), and in strong phosphoric acids containing up to 83.8 wt percent P_2O_5 . It was found that in the system $P_2O_5-H_2O$ the value of H_0 passes through a maximum at 79.7 wt percent P_2O_5 , which corresponds to the composition $H_4P_2O_7$. A further increase in the P_2O_5 content of the system leads to a decrease in acidity. Raising the temperature (20-80°) increases the acidity of aqueous HCl solutions. The acidity of

Card 1/2

USSR/Physical Chemistry - Solutions. Theory of Acids and Bases, B-11

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 488

Abstract: the system $P_2O_5-H_2O$ decreases when the temperature is increased (4-40°). In the region of strong phosphoric acids and high HCl concentrations, the derivative of the acidity-temperature characteristic is practically independent of the concentration. The values of the standard change in enthalpy ΔH^0 and entropy ΔS^0 during the ionization of the various basic indicators have been calculated.

Card 2/2

Shcheglova, G. G.

USSR/Physical Chemistry - Solutions. Theory of Acids and Bases, B-11

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 485

Author: Gel'bshteyn, A. I., Shcheglova, G. G., and Temkin, M. I.

Institution: None

Title: Acidity of the System $H_2SO_4-H_2O$ at Various Temperatures

Original

Periodical: Zh. neorgan. khimii, 1956, Vol 1, No 3, 506-515

Abstract: The acidity of sulfuric acid was studied as a function of the concentration (4-100% H_2SO_4) and the temperature (20, 40, 60, and 80°). It was established that in solutions containing less than 30% H_2SO_4 by weight, the acidity increases with temperature; in solutions containing 30-50 wt. percent H_2SO_4 , the acidity is practically independent of the temperature, and in solutions with higher concentrations, the acidity decreases with increasing temperature. An equation is given for the acidity: $H_2SO_4:H_2O = -1.74 - \lg K_2 - \lg x_{H_2SO_4}/x_{HSO_4^-} - \lg f_{H_2SO_4}^B/f_{HSO_4^-}^{BH^+}$, where K_2 is the equilibrium

Ca. Card 1/2

Chem. Kinetics of decomposition of formic acid in $\text{H}_2\text{SO}_4\text{-H}_2\text{O}$ and $\text{P}_2\text{O}_5\text{-H}_2\text{O}$ media. A. I. Gel'bshteyn, G. G. Shchegoleva, and M. I. Temkin (L. Ya. Karpov Inst. Phys. Chem., Moscow). *Zhur. Fiz. Khim.* 30, 2287-74 (1956). — The rate of homogeneous HCOOH decomposition was studied under static conditions from the vol. of CO evolved, at P_2O_5 concn. of 72.4–93.3 wt. %, and of H_2SO_4 at 80.7–98.2 wt. % and at various temps. In the $\text{P}_2\text{O}_5\text{-H}_2\text{O}$ system the max. rate is obtained at a concn. of max. acidity, corresponding to $\text{H}_4\text{P}_2\text{O}_7$. An analysis of the results obtained, taking into consideration the changes in acidity with the temp., agreed with the assumption of a formation of carbonium ion intermediates. Deviations from direct proportionality between the reaction rate and acidity are caused by changes of activation energy with changes of acid strength. At equal acidities the reaction in H_2SO_4 proceeds considerably slower than in $\text{H}_4\text{P}_2\text{O}_7$. W. M. Sternberg

for
MT

S HCHEGLOVA, G. G.

✓ The acidity of $\text{HCl-H}_2\text{O}$, $\text{H}_2\text{SO}_4\text{-H}_2\text{O}$, and $\text{P}_2\text{O}_5\text{-H}_2\text{O}$ systems at different temperatures. A. I. Gershman, G. G. Shcheglova, and M. I. Temkin. *Doklady Akad. Nauk S.S.S.R.* 107, 108-11 (1958).—The $H_0 = -\log a_{\text{H}^+}$ value (the acidity function), a continuation of the pH scale into high-concn. range, was heretofore measured only at room temp., although the variations in H_0 with the temp. defines accurately the activation energy in high-temp. catalysis. The results of color-intensity measurements were made with a Pulfrich photometer at 20, 40, 60, and 80° with a no. of indicators, with the acid concn. changes: HCl : 0.1-6.5M; H_2SO_4 : 4-100%; H_3PO_4 : 5-100%; and $\text{P}_2\text{O}_5 + \text{H}_2\text{O}$: 72.4-83.8%. The data for HCl , H_2SO_4 , and H_3PO_4 at room temp. agree with the data in the literature. For the $\text{P}_2\text{O}_5 + \text{H}_2\text{O}$ system no previous information was found. A max. was found in that system at 80% P_2O_5 concn., corresponding to the formula $\text{H}_4\text{P}_2\text{O}_7$. In the range of high HCl concn., the acidity rises with the temp., and dH_0/dT is independent of the concn.; in H_3PO_4 , the dH_0/dT is independent of the concn., except at concns. 25% H_3PO_4 . In H_2SO_4 the acidity rises to concns. below 30% H_2SO_4 with the temp., and drops at higher H_2SO_4 concns. The results are interpreted in mass-action terms.

W. M. Sternberg

AUTHORS:

Gel'bashteyn, A. I., Zansokhova, A. A.,
Shcheglova, G. G.

NOV/64 58-5-6/21

TITLE:

The Vapor Phase Alkylation of Benzene With Ethylene With
a Phosphorus-Diatomite Catalyst (Parofaznoye alkilirovaniye
benzola etilenom na fosforno-diatomitnom katalizatore)

PERIODICAL:

Khimicheskaya promyshlennost', 1958, Nr 5, pp. 284 - 287 (USSR)

ABSTRACT:

This alkylation was carried out in a high-pressure apparatus,
a diagram of which is given. In the case where the authors
worked with pure ethylene (instead of with an ethylene-nitrogen
mixture) it was dissolved in a special mixing bulb in benzene
and the composition of the mixture was determined by means of
pressure readings. The analysis of the liquid reaction pro-
ducts was carried out according to the melting temperature
method suggested by O.M. Podurovskaya, which had been developed
in the below mentioned laboratory for the analysis of benzene-
toluene mixtures. A diagram of the apparatus is given. The
authors carried out experiments with a 50% ethylene-nitrogen
mixture at different ratios to benzene, at 300 and 325° and
at 40 atmospheres absolute pressure. It was found that the
optimum molar ratio benzene - ethylene is in the vicinity of

Card 1/3

The Vapor Phase Alkylation of Benzene With Ethylene
With a Phosphorus-Diatomite Catalyst

SOV/64-59-5-6/24

10. The experimental results obtained are given in a table, as are those on the effect of the composition of the "Ethylene Reaction" on the alkylation process. From the experimental results obtained it may be seen that at a temperature of 325° a conversion of 85-90% of the ethylene into alkyl products is reached, with almost no side reactions taking place. A drop of the temperature decreases the conversion by 10-15%, so that the temperature mentioned may be regarded as the optimum temperature. The content of ethylbenzene in the reaction products was 10 per cent by weight. There are 3 figures, 2 tables, and 19 references, 5 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut imeni L.Ya.Karpova (Institute of Physics and Chemistry imeni L.Ya.Karpov)

Card 2/3

The Vapor Phase Alkylation of Benzene With Ethylene
With a Phosphorus-Diatomite Catalyst

SOV/64-58-5-6/21

1. Benzenes--Chemical reactions 2. Substitution reactions 3. Ethylene--Chemical
reactions 4. Catalysts--Chemical reactions

Card 3/3

GEL'BSHTEYN, A.I.; SILING, M.I.; SERGEYEVA, G.A.; SHCHEGLOVA, G.G.

Vapor phase catalytic conversions of acetylene. Part 1: Adsorption of acetylene and hydrogen chloride on catalysts for vapor phase hydrochlorination of acetylene. *Kin.i kat.* 4 no.1:149-155 Ja-F '63.
(MIRA 16:3)

1. Fiziko-khimicheskiy fakul'tet imeni L.Ya.Karpova.
(Acetylene) (Hydrochloric acid)

(Adsorption)

GEORGE, M. A.; G. L. G. M.; S. M. G. M.; G. L. G. M. Y. M. G. M.

Vapor-phase catalytic conversions of acetylene. Part 5: Catalysts
requirements in the catalysis by salts of vapor-phase reactions
of addition to acetylene. Kin. i kat. 5 no. 3:466-468. 1961.
USSR: 1961.

1. Fiziko-khimicheskiy institut imeni Erapova.

GEL'BSHTEYN, A.I.; AMRAPETOVA, R.P.; SHCHEGLOVA, G.G.; TEMKIN, M.I.

Acidity function of the system $P_2O_5 - H_2O$ Zhur. neorg. khim.
9 no.6:1502-1505 Je '63 (MIRA 17:8)

1. Fiziko-khimicheskiy institut imeni Karpova.

С. ИВАНОВ, В. Л. КИРЮХИН, В. А. КОЗЛОВ, А. А. ПИКОЛЕВА, Г. И. ПИКОЛЕВА, Г. И.

Number of unimolecular active particles in chemical reactions of gases by the semiorder-of-rate method. *Ther. fiz. khim.* 39
p.1013-1018 (1962). (MIRA 18:12)

1. Moskoyevskiy (Pribluzhennyy) Institut Inzheni Karpovsk.
Sobremennaya May 23, 1946.

SHCHEGLOVA, G. M.

TSERLING, V.V.; SHCHEGLOVA, G.M.; PLYSHEVSKAYA, Ye.G.; ZERTSALOV, V.V.

Using radioactive nitrogen N^{15} in studying plant metabolism as affected by age and the amount and time of applying fertilizers [with summary in English]. Fiziol.rast. 4 no.1:3-13 Ja-F '57.

1.Pochvennyy institut im. V.V. Dokuchayeva Akademii nauk SSSR, Moskva.

(Plants--Metabolism)
(Fertilizers and Manures) (Nitrogen--Isotopes)

GINZBURG, K. Ye.; SHCHEGLOVA, G.M.

Determining nitrogen, phosphorus, and potassium in plants by
using a single sample. Pochvovedenie no.5:100-105 My '60.
(MIRA 14:4)

1. Pochvennyy institut imeni V. V. Dokuchayeva AN SSSR.
(Plants—Chemical analysis)

TSERLING, V.V.: SHCHEGLOVA, G.M.

Utilization and distribution in plant organs of phosphorus given
as a top dressing as influenced by different phosphorus nutrition
levels. Trudy Pochv. inst. 55:272-284 '60. (MIRA 13:11)
(Plants, Motion of fluids in)
(Plants, Effect of phosphorus on)

GINZBURG, K.Ye.; SHCHEGLOVA, G.M.; VOLPIUS, Ye.V.

Rapid method for the combustion of soils and plants. Pochvovedanie
no.5:89-96 My 163. (MIRA 16:5)

1. Pochvennyy institut imeni V.V.Dokuchayeva
(Soils—Analysis) (Plants—Chemical analysis)

ANDREYEVA, Ye.A.; SHCHESLOVA, G.M.

Utilization of nitrogen fertilizers by plants. Pochvovedenie no.12:
47-54 C '64. (MIRA 18:2)

1. Pochvennyy institut imeni V.V. Dokuchayeva, AN SSSR, Moskva.

MAL'TSEVA, T.A., aspirant; VIRNIK, A.L., starshiy nauchnyy sotrudnik;
ROGOVIN, Z.A., prof.; SHCHEGLOVA, G.V., aspirant; VASHKOV, V.I., prof.

Antibacterial cellulose fibers and fabrics. Tekst. prom. 25
no.4:15-17 Ap '65. (MIRA 18:5)

1. Moskovskiy tekstil'nyy institut (for Mal'tseva, Virnik,
Rogovin). 2. Tsentral'nyy nauchno-issledovatel'skiy
dezinfektsionnyy institut (for Shcheglova, Vashkov).

L 30710-66 EW:(3)/EW(1)/EW(2)/T RM
 ACC NR: AP5028989 SOURCE CODE: U/04/2/65/000/009/0031/0032

AUTHORS: Mal'tseva, T. A. (Aspirant); Virnik, A. P. (Senior research associate);
Rogovin, Z. A. (Professor); Shcheglova, G. V. (Aspirant); Vashkov, V. I. (Professor, Director)

ORG: Mal'tseva, Virnik (Moscow Textile Institute - Moskovskiy tekstil'nyy
 institut); Shcheglova, Vashkov (Central Scientific Research Disinfection Institute
 -- Tsentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut)

TITLE: Antibacterial synthetic fibers and cloths

SOURCE: Tekstil'naya promyshlennost', No. 9, 1966, 31-32

TOPIC TAGS: textile, textile industry, bacteria, bactericide, silver

ABSTRACT: Antibacterial synthetic fibers were obtained by treating modified
fibers of polyvinylalcohol, cloth made from modified polypropylene fibers, and
jersey cloth made from modified capron fibers with the following bactericides:
 silver, N-cetylpyridinal terramycin, streptomycin, and hexachlorophene. The
 effectiveness of the treatment was determined by the effect it had on golden
staphylococcus and Escherichia coli bacteria. The experimental procedure

Card 1/2

UDC: 677:615.799.9

L 30710-66
ACG NR: AP5028989

followed that described previously by the authors (Tekstil'naya promyshlennost' 1965, 4, str. 15). The results are tabulated. It is concluded that fabrics may be made impervious to bacterial action by treating them with a suitable bactericide. Orig. art. has: 1 table.

SUB CODE: 11/ SUBM DATE: none/ SOV REF: 002

Card 2/2 LS

GOL'DMAN, V.B.; LARYUKHIN, G.A., kand. tekhn.nauk, nauchn. red.;
SHCHEGLOVA, I.B., red.; KOGAN, F.L., tekhn. red.

[Combining timber skidding tractors with machines used in
forestry] Agregatsirovanie trelevochnykh traktorov s lesa-
khoziaistvennymi mashinami; obzor. Moskva, Gos.kom-t Soveta
Ministrov SSSR po avtomatizatsii i mashinostroeniiu, 1962. 39 p.
(MIRA 16:8)
(Forests and forestry--Equipment and supplies)

ZDANCVICIUS, L.I.; LARYUKHIN, G.A., kand. tekhn. nauk, nauchn. red.;
SHCHEGLOVA, I.B., red.; KOGAN, F.L., tekhn. red.

[Preparation of stock for paper manufacture] Podgotovka bu-
mazhnoi massy. Vilnius, Gos.kom-t Soveta Ministrov Litovskoi
SSR po koordinatsii nauchno-issl. rabot, 1962. 48 p.
(MIRA 16:8)

(Lithuania--Paper industry--Research)

KOVGAN, A.P., kand. tekhn. nauk, red.; SHCHEGLOVA, I.B., red.

[Physical and mechanical properties of soils and plants; collection of works of the All-Union Scientific Research Institute of Agricultural Machinery] Fiziko-mekhanicheskie svoistva pochvy i rastenii; sbornik trudov VISKhom. Moskva, 1963. 146 p. (MIRA 17:5)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy informatsii po avtomatizatsii i mashinostroyeniyu.

KOSTOUSOV, A.I.; VASIL'YEV, V.S.; GRECHUKHIN, A.I.; DEGTYARENKO, N.S.; PETROCHENKOV, A.G.; PROKOPOVICH, A.Ye.; TELESHOV, A.P.; SHEVYAKOV, L.N.; GONCHAROVA, S.L., nauchn. red.; BORUSIMOV, I.V., red.; LOGINOVA, R.A., red.; MONAKHOVA, N.F., red.; SHCHEGLOVA, I.B., red.; KOVAL'SKAYA, I.F., tekhn. red.

[Machine-tool industry in Japan according to materials from the Machine-tool Exhibition of 1962 in Osaka] Stan-
kostroenie Iaponii; po materialam stankostroitel'noi
vystavki 1962 goda v g.Osaka. Moskva, 1963. 473 p.
(MIRA 16:12)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy
informatsii po avtomatizatsii i mashinostroyeniyu.
(Japan--Machine-tool industry)

VORONEZHSKIY, V.I.; KOBERNICHENKO, I.A.; CHURBANOVA, I.S., red.;
SHCHEGLOVA, I.B., red.

[Mechanization of sugar beet growing and harvesting; a
survey] Mekhanizatsiia vozdeleyvaniya i uborki sakharnoi
svekly; obzor. Moskva, 1962. 132 p. (Serioa XI: Traktor-
noe i sel'skokhoziaistvennoe mashinostroenie)
(MIRA 17:4)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy in-
formatsii po avtomatizatsii i mashinostroyeniyu.

IYEVINSH, Ya.K.; BETIN, S.G.; KHAAS, V.N.; TRACHUKOV, V.Ya.,
nauchn. red.; SHEGLOVA, I.B., red.

[Farm mechanization in the countries of the northwestern
zone of Europe (Finland, Sweden, Denmark, the German
Democratic Republic)] Mekhanizatsiya sel'skogo khoziaistva
v stranakh Severo-Zapadnoi zony Evropy (Finliandii -
Shvetsii - Danii - GDR); obzor. Moskva, 1963. 91 p. (Kom-
pleksnaya mekhanizatsiya i avtomatizatsiya predpriyatii.
Seriya I-63) (MIRA 17:5)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy in-
formatsii po avtomatizatsii i mashinostroyeniyu.

ACC NR: AR1002216

SOURCE CODE: UR/0271/66/000/010/A077/A077

AUTHOR: Yagodkin, I. A.; Shehegoleva, I. Ye.; Pshenichnyy, V. I.

TITLE: Pattern recognition in astronavigation

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs, 10A514

REF SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 51, 1965, 128-133

TOPIC TAGS: pattern recognition, stellar radiation, astronavigation

ABSTRACT: An analogy is made between a recognition device and a biological analyzer. The functional block diagram is described of a device which is capable of recognizing various configurations with contours marked with a series of luminous points. It is pointed out that the simplest way of recognizing the shape of a stellar field is by the method of optical correlation. Maximum correlation takes place when the ray of each star enters the corresponding aperture on a disk-form map. The device has two optical correlators. The maps of both correlators are identical. They are arranged in such a manner so that the group of apertures on one map is rotated in relation to the aperture group of the other around the axis

UDC: 62-5:629.13:621.396.988.7

Card 1/2

ACC NR: AR7002216

oriented toward the center of the sighted sector of the sky. This yields two separate correlation functions. The difference between these correlation functions characterizes both the value and the direction of rotation of the pattern in relation to the stellar field. The method of optical correlation reduces to a minimum the probability of interference on the part of light sources not assigned by the map. Moreover, it makes it possible to improve the sensitivity of the system because the radiation of several stars is reduced on the sensitive surface of the receiver to a single luminous spot. One illustration. [Translation of abstract] [DW]

SUB CODE: 09, 17/

Card 2/2

VOSTRIKOVA, A.M.; SAKHAROVA, V.V.. Prinimali uchastiye: FISHKO, F.Ye.;
YEFIMOVA, N.M.; BABURSKAYA, Z.T.; POZDNYAKOVA, K.I.; SHCHEGLOVA,
K.D.; KUSTOVA, V.T.; POD"YACHIKH, P.G., red.; STRONGIN, V.I.,
red.; PYATAKOVA, N.D., tekhn.red.

[Public health in the U.S.S.R.; compendium of statistics] Zdravo-
okhranenie v SSSR; statisticheskii sbornik. Moskva, Gosstatizdat
TsSU SSSR, 1960. 271 p. (MIRA 13:8)

1. Russia (1923- U.S.S.R.) TSentral'noye statisticheskoye upravle-
niye.2. Otdel statistiki naseleniya i zdravookhraneniya TSentral'nogo
statisticheskogo upravleniya SSSR (for all except Strongin, Pyatakova).
3. Chlen Kollegii TSentral'nogo statisticheskogo upravleniya SSSR (for
Pod"yachikh).

(PUBLIC HEALTH--STATISTICS)

FERDINAND, Ya.M.; MEDYUKHA, G.A.; KUCHERENKO, R.A.; DUNCHENKO, Ye.P.
STROKOVA, Ye.I.; SHCHEGLOVA, L.A.; PYASETSKAYA, Ye.A.;
DEMENT'YEVA, A.I.; ZOLINA, L.T.

Epidemiological effectiveness of the systematic use of the typhoid
bacteriophage for chronic bacterial carriers. Sov. med. 24
no. 5:128-130 My '60. (MIRA 13:10)

1. Iz Rostovskogo-na-Donu instituta epidemiologii, mikrobiologii
i gigiyeny.
(TYPHOID FEVER) (BACTERIOPHAGE)

KUT'IN, I.M., kand. tekhn. nauk; SHCHEGLOVA, L.D., red.; SHKLYAR,
S.Ya., tekhn. red.

Mezhdunardnyi elektrotekhnicheskii slovar'. International
electrotechnical vocabulary. Moskva, fizmatgiz.
Group 31. Signalizatsiia i ustroistva bezopasnosti na zhe-
leznykh dorozhakh. Signalling and security apparatus for
railways: 1963. ~~106 p.~~ (MIRA 17:1)

1. International Electrotechnical Commission.

VISLOUKH, L.A.; PETROV, G.A.; SHCHEGLOVA, L.D., red.; BRUDNO,
K.F., tekhn. red.

[International electrotechnical vocabulary] Mezhdunarodnyi elektrotekhnicheskii slovar'. Moskva, Glav. red. inostr. nauchno-tekhn. slovarei Fizmatgiza. Group 30.
[Electric traction] Elektricheskaya tiaga. 1963. 196 p.
(MIRA 17:2)

1. International Electrotechnical Commission.

TOLMACHEV, A.I.; SRIBNAYA, V.P.; SHCHEGLOVA, L.V.

Chloro-substituted benzopyrylium monomethine cyanines. Zhur.ob.
khim. 33 no.2:440-447 F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN UkrSSR.
(Methinecyanine) (Benzopyrylium compounds)

TOLMACHEV, A.I.; SHCHEGLOVA, L.V.

Synthesis of meso-arylthiacarbocyanines in the cleavage of the
pyrylium ring of pyrylocyanines. Zhur.ob.khim. 33 no.2:448-
453 F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN UkrSSR.
(Thiacarbocyanine) (Pyrylium compounds)

SIEHENKOVA, M. A.

Acoustometry in the diagnosis of cardiac diseases. Ter. arkh. 22:3,
May-June 50. p. 47-51

1. Of Oktyabr'skiy Rayon Hospital (Head Physician—Honored Physician
USSR M. A. Troitskaya).

GIN. 19, 5, Nov., 1950

SHCHEGLOVA, M.A.

Electrocardiographic changes in patients with coronary insufficiency following omentocardiopexy. Vrach. delo no.3:309 Mr '57
(MLRA 10:5)

1. Kabinet funktsional'noy diagnostiki (nachal'nik-kand. med. nauk, inzhener-mayor M.A. Shcheglova) Tsentral'noy koinicheskoy bol'nitsy Ministerstva putey soobshcheniya.
(ELECTROCARDIOGRAPHY) (OMENTUM--SURGERY) (PERICARDIUM--SURGERY)

SHCHEGLOVA, M.A., kandidat meditsinskikh nauk (Moskva)

~~_____~~
In vivo diagnosis of cardiac aneurysm. Vrach.delo no.4:425 4p '57.
(MLRA 10:7)

1. Kabinet funktsional'noy diagnostiki (nach. - M.A.Shcheglova)
TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya
(ANEURYSMS)

S. J. W. , J. A. , (C. J.) "The ...
clinic ...
... (C. J.)

KUL'TIN, Ye.I.; KONDUKOV, V.P.; SHCHEGLOVA, M.A.

Wet method of charge preparation for pelletizing. Obog.
rud. 5 no.1:26-28 '60. (MIRA 14:8)
(Ore dressing)

SHCHEGLOVA, M. A.

Axometric studies in rheumatism. Suvr. med. 12 no.9:59-67 '61.

1. Iz Moskovskata zhp bolnitsa (Nachalnik na bolnitsata A. D. Veisbein)

(RHEUMATIC HEART DISEASE diag)
(ELECTROCARDIOGRAPHY)

SHCHEBLOVA, M. D.

15
The stability of dinas (silica brick) and its change at the heating up to 1600°. I. S. Kufnarski and M. D. Shcheblov (Lenin Politech. Inst., Kharkov). *Ogneupory* 21, 103-202 (1958). Samples of dinas brick were prepd. of Oyruch's quartzite contg. SiO_2 98.52, Al_2O_3 0.84, CaO 0.13, Fe_2O_3 0.14, MgO 0.05, and loss on ignition 0.34%. The 2 types of samples prepd. were with 2.2% CaO + 0.8% FeO and with 2.2% FeO + 0.8% CaO ; they were pressed with 250 kg./sq. cm. and tested from 20 to 1600° for the limits of their strength. All samples had lower strength owing to the modification transformation of $\gamma \rightarrow \beta \rightarrow \alpha$ of tridymite at 180-250° and of $\beta \rightarrow \alpha$ of cristobalite at 117-250°. The first transformation resulted in increase of vol. for 0.4% and the 2nd for 2.8%. These transformations created states of strain in the samples and resulted in lowering the resistance to pressure. The strength of monomineral dinas (81% quartz, 85% tridymite, or 87% cristobalite) did not change with heating (from 20 to 600°). With further heating of polymineral dinas from 250°, its strength increased with max. at 300° and then gradually decreased up to 1000-200°. This is the result of gradually attaining the equil. of thermal expansion of component phases and attaining its plasticity. At higher temp. (up to 1600°) liquid phase was formed and gradually increased, which resulted in drastic lowering of the strength of dinas, which finally transformed into plastic state. The effects of different addns. were tested. A. N. Pestoff

SHCHEGLOVA, M. D.

15 3-4E2C
 2043. Dependence of the phase composition of silica brick on composition of the bond and grain-size distribution of the bodies.—I. S. KOINARSKII and M. D. SHCHEGLOVA (Ogneupory, 22, 173, 1957). In Russian. Silica bricks for coke-ovens were pressed from Ovruchskii quartzite containing (%) on ignited substance: SiO_2 , 98.4; Al_2O_3 , 0.86, the remainder being CaO , MgO and Fe_2O_3 . Two additives were used: (1) CaO - FeO (2.2%+0.8%) and (2) FeO - CaO (2.2%+0.8%). With both bonds the amount of tridymite and cristobalite in silica brick depends on the proportion of fines (<0.088 mm) in the body. Tridymite-forming action of the bonds was studied, and changes in phase composition of silica brick of the same grain-size distribution with varying composition and amount of bond were investigated. It is concluded that the CaO in the bond must exceed the FeO ; this ensures greater tridymitization of the bricks. Al_2O_3 is undesirable in the bond and excess in the quartzite is detrimental. Grain-sizes of quartzite in the body should be 1-3 mm and the content of fines 30-35%. (4 figs., 4 tables.)

PM
 MT

SHCHEGLOVA, M.D.; PODGORNYY, A.N.; SHCHEGLOV, S.I.

Strength and changes in the strength of grog refractories under the
effect of heating up to 1500°. Izv.vys.ucheb.zav.; Chern.met., 4 no.6:
164-167 '61. (MERA 14:6)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut.
(Refractory materials—Testing)

44354

S/131/62/000/012/004/004

3117/B186

15.2000

AUTHORS: Shcheglova, M. I., Shcheglov, S. I.

TITLE: Strength of some refractories at high temperatures

PERIODICAL: Ogneupory, no. 12. 1962. 566 - 567

TEXT: The compressive strength, σ_{compr} , of certain refractories was determined between 20 and 1600°C (at intervals of 100 - 200°C). The samples were of clay from three sources, namely: dinas from the dinasovyy zavod im. Dzerzhinskogo (Dinas Plant imeni Dzerzhinskiy), fire clay from the Zaporozhskiy ogneupornyy zavod (Zaporozh'ye Refractory Plant), and forsterite from the Panteleymonovskiy ogneupornyy zavod im. K. Marksa (Panteleymonovka Refractory Plant imeni K. Marx). Upon heating the strength of the cylindrical test samples at first decreased noticeably to 15 - 25% of the σ_{compr} at room temperature. Maximum reduction in compressive strength was observed at 250 - 600°C for dinas, at 500 - 600°C for fire clay, and at 100 - 200°C for forsterite samples. Further increase in temperature leads to an increase in compressive strength, with maximum

Card 1/2

Strength of some...

S/151/62/000/012/004/004
9117/B186

values of 308 kg/cm^2 at 600°C (initial value) for dinas, 750 kg/cm^2 at 1000°C for fire clay and 230 kg/cm^2 for forsterite samples. At this temperature, σ_{compr} is three times the original value for fire clay, and nearly twice for forsterite samples. On a further increase in temperature, σ_{compr} decreases, being only 30 kg/cm^2 at 1500°C for fire clay and forsterite, and at 1600°C for dinas samples. The minima and maxima of σ_{compr} depend on the phase composition (microscopic studies revealed in dinas samples $\sim 70\%$ tridymite, in fire clay $\sim 50\%$ mullite, and in forsterite samples $\sim 70\%$ forsterite), the structure, and the properties of the individual phase components. There are 1 figure and 2 tables. X

ASSOCIATION: Dnepropetrovskiy khimiko-tehnologicheskii institut im.
F. E. Dzerzhinskogo (Dnepropetrovsk Institute of Chemical
Technology imeni F. E. Dzerzhinskiy)

Card 2/2

L 27821-65 EWP(e)/EWT(m)/T WH

ACCESSION NR: AP5002926

S/0131/65/000/001/0043/0045

AUTHOR: Belyayev, G. I.; Shcheglova, M. D.; Khanevskaya, L. S.

TITLE: High-temperature strength of forsterite refractories

SOURCE: Ogneupory, no. 1, 1965, 43-45

TOPIC TAGS: forsterite, dunite, magnesite, compressive strength, presintering, grain distribution, high temperature strength

ABSTRACT: The compressive strength of forsterite composed of 75% dunite and 25% magnesite was tested within the 100 - 1500 C range. The best strength characteristics were observed in specimens with a presintered (1000C) dunite component having the following grain distribution: 29% 3-1.5 mm; 13% 1.5-1 mm; 17% 1 to 0.5 mm and 41% under 0.5 mm. These specimens displayed lowered porosity (reduced by 3%) and an increase in the compressive strength from 153 to 206 kg/cm². A 20 to 40% decline in the compressive strength of all specimens was observed at 100 - 200 C, which eventually increased under the influence of higher temperatures. Maximum strength was observed at 1000 C for all specimens but it decreased above that temperature. Industrial specimens from the Panteleymonova Plant re-

Card 1/2

L 27821-65

2

ACCESSION NR: AP5002926

vealed a similar pattern. Tests with Mg_2SiO_4 specimens showed that temperatures above 1100 C had no effect on strength characteristics. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskii institut (Dnepropetrovsk chemical and technological institute); Chasov-Yarskiy kombinat ognepornykh izdeliy (Chasov-Yar refractory combine)

SUBMITTED: 00

ENCL: 00

SUB CODE: MI

NO REF SOV: 004

OTHER: 000

Card 2/2

3100000000, 00.00

AUTHOR:

Khramov, I. P.

SOV/131-58-7 12/14

TITLE:

Conference of the Specialists for Refractories of the Moscow Oblast (Konferentsiya ogneporshchikov moskovskoy oblasti)

PERIODICAL:

Ogneupory, 1958, No 7, pp 532 - 534 (USSR)

ABSTRACT:

From May 12 - 13, 1958, an administrative and technical conference took place at the Snigirevskiy Works for Refractories. It had been called by the administration of the metallurgical industry as well as by the technical administration of the Oblast Council of National Economy, and it dealt with the exchange of opinions on mechanization in the works for refractories of the Moscow oblast. The conference was attended by outstanding members from the staff of enterprises, engineers, technicians, commercial managers of the works for refractories in the Moscow Oblast as well as by representatives of the works of refractories in the Sverdlovsk, Stalin, Zaporozh'ye, Novgorod, and Tula oblasts of the scientific research and planning institutes. 15 reports and communications were heard. The Chief Engineer of the metallurgical administration of the Council of National Economy of Moscow Oblast, G.M. Yegorov, opened the conference with a survey of the achievements of the works in the Moscow oblast. He stressed

Card 1/3